

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In Re Application of:

Applicant : Robert L. Cucin  
Serial No. : ~~10/712,215~~ 10/702215  
Filing Date : November 4, 2003  
Title of Invention : POWER-ASSISTED LIPOSUCTION INSTRUMENT WITH CAUTERIZING CANNULA ASSEMBLY  
Examiner : n/a  
Group Art Unit : n/a  
Attorney Docket No. : 113-003USANB0

Honorable Commissioner of Patents  
and Trademarks  
Washington, DC 20231

**INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 C.F.R. 1.97**

Sir:

In order to fulfill Applicant's continuing obligation of candor and good faith as set forth in 37 C.F.R. 1.56, Applicant submits herewith an Information Disclosure Statement prepared in accordance with 37 C.F.R Sections 1.97, 1.98 and 1.99.

The disclosures enclosed herewith are as follows:

**U.S. PUBLICATIONS**

| <u>NUMBER</u> | <u>FILING DATE</u> | <u>TITLE</u>  |
|---------------|--------------------|---|
| 6,102,885     | August 7, 1997     | DEVICE FOR SUCTION-ASSISTED LIPECTOMY AND METHOD OF USING SAME      |
| 5,810,809     | January 13, 1997   | ARTHROSCOPIC SHAVER INCORPORATING ELECTROCAUTERY                    |
| 5,797,907     | December 15, 1995  | ELECTROCAUTERY CUTTER   |
| 5,795,323     | June 26, 1997      | POWER-ASSISTED LIPOSUCTION INSTRUMENT AND CANNULA ASSEMBLY THEREFOR |
| 5,643,198     | September 16, 1994 | POWER-ASSISTED LIPOSUCTION INSTRUMENT AND CANNULA ASSEMBLY THEREFOR |

|           |                    |  |
|-----------|--------------------|--|
| 5,520,685 | August 4, 1994     | THERMALLY-INSULATED ANTI-CLOG TIP FOR ELECTROCAUTERY SUCTION TUBES |
| 5,514,086 | September 22, 1994 | MULTIPIECE ULTRASONIC PROBE FOR LIPOSUCTION                        |
| 5,364,395 | November 15, 1994  | ARTHROSCOPIC SURGICAL INSTRUMENT WITH CAUTERIZING CAPABILITY       |
| 5,352,194 | June 29, 1992      | AUTOMATED DEVICE FOR LIPOSUCTION                                   |
| 5,295,955 | February 14, 1992  | METHOD AND APPARATUS FOR MICROWAVE AIDED LIPOSUCTION               |
| 5,290,282 | June 26, 1992      | COAGULATING CANNULA  |
| 5,277,696 | October 13, 1992   | MEDICAL HIGH FREQUENCY COAGULATION INSTRUMENT                      |
| 5,236,414 | September 3, 1991  | FAT SUCKING APPARATUS  |
| 5,186,714 | May 18, 1992       | MULTIFUNCTIONAL SURGICAL INSTRUMENT                                |
| 5,112,302 | July 16, 1990      | METHOD AND APPARATUS FOR PERFORMING LIPOSUCTION                    |
| 5,106,364 | June 29, 1990      | SURGICAL CUTTER  |
| 5,024,652 | May 17, 1990       | OPHTHALMOLOGICAL DEVICE  |
| 4,940,468 | January 13, 1988   | APPARATUS FOR MICROSURGERY   |
| 4,938,743 | June 29, 1989      | SURGICAL APPARATUS FOR PERFORMING SUCTION LIPECTOMY                |
| 4,932,935 | November 20, 1987  | ASSISTED LIPECTOMY DEVICE  |
| 4,919,129 | November 30, 1987  | EXTENDABLE ELECTROCAUTERY SURGERY APPARATUS AND METHOD             |
| 4,909,249 | November 5, 1987   | SURGICAL CUTTING INSTRUMENT  |

|           |                    |   |
|-----------|--------------------|---|
| 4,886,491 | February 29, 1988  | LIPOSUCTION PROCEDURE WITH ULTRASONIC PROBE                           |
| 4,850,354 | August 13, 1987    | SURGICAL CUTTING INSTRUMENT   |
| 4,815,462 | April 6, 1987      | LIPECTOMY DEVICE  |
| 4,792,327 | October 16, 1987   | LIPECTOMY CANNULA   |
| 4,775,365 | September 23, 1987 | LIPECTOMY CANNULA   |
| 4,735,605 | September 15, 1986 | LIPECTOMY DEVICE HAVING ROUND CUTTING EDGES                           |
| 4,589,414 | April 20, 1984     | SURGICAL CUTTING INSTRUMENT   |
| 4,577,629 | October 28, 1983   | SURGICAL CUTTING INSTRUMENT FOR OPHTHALMIC SURGERY                    |
| 4,536,180 | July 22, 1983      | SURGICAL INSTRUMENT FOR SUCTION LIPOLYSIS                             |
| 4,530,356 | February 8, 1983   | OPHTHALMIC SURGICAL INSTRUMENT WITH BEVELED TIP                       |
| 4,487,600 | August 10, 1983    | ADJUSTABLE SUCTION DEVICE FOR MEDICAL USE                             |
| 4,314,560 | November 28, 1979  | POWERED HANDPIECE FOR ENDOPHTHALMIC SURGERY                           |
| 4,311,140 | June 4, 1979       | VACUUM CURET HAVING AN IMPROVED CURETTING OPENING                     |
| 4,203,444 | May 20, 1980       | SURGICAL INSTRUMENT SUITABLE FOR CLOSED SURGERY SUCH AS OF THE KNEE   |
| 4,167,944 | June 27, 1977      | ROTATABLE SURGICAL CUTTING INSTRUMENT WITH IMPROVED CUTTER BLADE WEAR |
| 3,994,297 | December 9, 1974   | OPHTHALMIC INSTRUMENT   |
| 3,955,579 | July 23, 1973      | VACUUM CURET  |
| 3,945,375 | April 30, 1973     | ROTATABLE SURGICAL INSTRUMENT   |

|           |                   |  |
|-----------|-------------------|--|
| 3,734,099 | April 7, 1971     | POWERED SURGICAL CUTTER  |
| 3,732,858 | February 14, 1969 | APPARATUS FOR REMOVING BLOOD CLOTS, CATARACTS AND OTHER OBJECTS FROM THE EYE |
| 3,082,805 | December 21, 1960 | TISSUE MACERATOR   |

**FOREIGN PUBLICATIONS**

| <u>NUMBER</u> | <u>PUBLICATION DATE</u> | <u>TITLE</u>  |
|---------------|-------------------------|---|
| 2 648 050     | June 8, 1989            | DISPOSITIF POUR ASPIRER ET EVACUER LES DEPOTS GRAISSEUX DANS LES TISSUS ADIPEUX |
| 0 125 070 A2  | November 14, 1984       | SURGICAL CUTTING INSTRUMENT   |

**TECHNICAL PUBLICATIONS**

Scientific Article entitled "Body Contouring with Suction Lipectomy" by Kesselring, Clinics in Plastic Surgery, Vol. 11, No. 3, Pages 393-408.

Scientific Article entitled "Illouz's Technique of Body Contouring by Lipolysis" by Illouz, Clinics in Plastic Surgery, Vol. 11, No. 3, Pages 409-417.

**INTERNATIONAL SEARCH REPORTS**

| <u>App. No.</u>                          | <u>Filing Date</u> |
|--|--------------------|
| European Search Report for EP 94 30 6845 | February 22, 1995  |

### STATEMENT OF PERTINENCE

U.S. Patent No. 6,102,885 to Bass discloses a vacuum-assisted liposuction instrument comprising a cannula, in which a pair of electrodes are situated within the cannula cavity just under the surface of the cannula tip openings, or as part of the walls of such openings. As disclosed, the electrodes are spaced to allow coagulation of fat entering the cannula during aspiration operations.

U.S. Patent No. 5,810,809 to Rydell discloses an arthroscopy instrument for debriding tissue which also includes an electrocautery electrode for effecting hemostasis in the surgical site. The drive motor for the debriding instrument is placed remotely from the instrument's handle and provision is made for electrically insulating the handle from the drive motor and associated power supply even though the arthroscopic surgery is taking place under saline.

U.S. Letters Patent No. 5,797,907 to Clement discloses a handheld electrocautery cutter which is provided for suction, removal of body tissues and electrocauterization of tissue in a patient. The electrocautery cutter includes a distal end, a rigid cannula, a movable cutter, a valve, a valve actuator, an electrical switch, and an electrical actuator. The rigid cannula defines a cannula interior and the cannula includes a proximal end and a distal end. The distal end of the cannula is insertable and positionable in a patient's body and the cannula defines a cannula opening adjacent the distal end to permit access to the cannula interior for capture of body tissue in the cannula interior. The movable cutter cuts tissue entering the cannula opening and the cutter actuator moves the cutter. The valve is connected to the cannula to control suction flow from the cannula interior and the valve actuator actuates the valve. The electrical switch is linked to the cannula to control mono-polar electrocautery current flowing from the distal end of the electrocautery cutter to the patient and the electrical actuator activates the electrical switch. The cannula and valve are integrated into a rigid structure to be held in a user's hand such that movement of the rigidly coupled cannula and valve by a user's hand allows the distal end of the cannula to be accurately positioned at a specific location in the patient's body. The cutter actuator, valve actuator, and electrical actuator are operable by a hand of the user as it moves the rigidly coupled valve and cannula to accurately position the distal end of the cannula in the patient's body.

U. S. Patent No. 5,795,323 to Cucin discloses a power-assisted liposuction instrument a cannula assembly, and is based on earlier US Applications to which the present Application Claims priority.

U. S. Patent No. 5,643,198 to Cucin discloses a power-assisted liposuction instrument a cannula assembly, and is based on earlier US Applications to which the present Application Claims priority.

U.S. Patent No. 5,520,685 to Wojciechowicz discloses a suction coagulator which includes an improved anti-clog tip. The anti-clog tip is located at the distal end of a hollow, conductive tube, the proximal end of which is connected to a handle. An interior channel runs through the conductive tube and the handle through a suction fitting thereon to a conventional source of suction. The handle also includes an electrical connection for providing electrical power to the conductive tube. An insulating layer surrounds the exterior sidewall of the conductive tube and is stripped back a distance of 0.050 to 0.200 inches from the distal end of the conductive tube. A

thermal insulating sleeve or coating is located inside the interior channel of the conductive tube and extends from the distal end a distance into said interior channel. The distance is approximately 1 1/2 to 3 times the outside diameter of the conductive cannula tube. The insulating sleeve provides substantial thermal insulation and some electrical insulation. In a preferred embodiment of the invention, the distal end of the tube is flared into a bell creating an air gap having a space between the insulation sleeve and the inside diameter of the bell. The outside diameter of the bell is approximately equal to the outside diameter of the hollow, conductive cannula tube.

U.S. Patent No. 5,514,086 to Parisi et al. discloses an ultrasonic surgical liposuction apparatus which comprises a piezoelectric crystal transducer assembly connectable to an interchangeable operative probe and tip. The probe can be hollow, if aspiration of the fatty tissue is desired, or it can be solid. The tip is largely formed of a plastic material, to prevent the propagation of the ultrasonic waves to the distal end of the apparatus. Prevention of propagation of the ultrasonic energy to the distal end prevents unwanted damage of the tissues by an excessively hot tip. The tip can be removable or permanently affixed by a weld. The tip can have a metal jacket covering the lateral surfaces of the plastic tip body, to assist penetration of the fatty tissue, or the tip can be entirely made of plastic. The tip can also have an opening or series of openings for aspiration of the fatty tissue.

U.S. Patent No. 5,364,395 to West discloses an instrument capable of selectively cutting or cauterizing tissue including a handle and an elongated electrically conductive probe with a longitudinally extending lumen communicating with the handle. The distal end of the probe has an aperture formed therethrough between the lumen and the exterior of the probe. An elongated drive shaft is disposed within the lumen for rotation about the longitudinal axis of the drive shaft. A cutting tool is positioned on the shaft opposite the aperture. An electrically insulative layer is disposed on the exterior of the probe extending from the proximal end of the probe to the periphery of a preselected region on the distal end of the probe. The preselected region is selectively coupleable to a power source to permit cauterization. An alternate embodiment employs an electrically insulative probe and an embedded electrically conductive pathway coupled to the preselected region. Yet another embodiment utilizes an electrically insulative sleeve selectively disposable about the exterior of the probe. An electrocautery contact is exposed at the outer surface of the distal end of the sleeve and is electrically coupled through the probe, or through an electrical pathway embedded in the sleeve, in order for the couple to contact a power source.

U.S. Patent No. 5,352,194 to Greco et al. discloses a device for performing liposuction in which the required rectilinear, reciprocal motion of the cannula is mechanically automated. Generally, the present device comprises a handle means, a powered means for producing a controlled, rectilinear, reciprocal motion of the cannula of a stroke length of at least 1 centimeter, and a means for operatively connecting a cannula to the powered means. By automation of the reciprocal motion required during liposuction, the present device allows liposuction with minimum effort on the part of the surgeon, with smaller cannulae than presently used.

U.S. Patent No. 5,295,955 to Rosen et al. discloses a process in which fatty tissue involved in a liposuction procedure is treated with microwave energy (also known as RF). In a particular embodiment of the invention, the microwave energy is applied by means of a catheter including a

suction lumen, an electromagnetic transmission line, and an antenna coupled to the distal end of the transmission line. A microwave generator coupled to the distal end of the transmission line causes radiation from the antenna into the fatty tissue adjacent to the distal suction port of the suction lumen, which tissue is thereby heated softened. The softened fatty tissue is more readily detached from the adjacent tissue than in the absence of heat, and less mechanical force is required for removal. In another embodiment of the invention, the transmission line is formed so that the electromagnetic field extends into the suction lumen, so that the fatty tissue being removed therethrough continues to be heated. Saline solution or other liquid with polar molecules is injected into the region being treated to provide improved coupling of energy between the electromagnetic radiation and the fatty tissue. Microwave radiation may be applied to the region being treated by means of an external radiator. The heating effect of the radiation not only softens the tissue for ready removal, but also tends to sterilize the region for reducing infection.

U.S. Patent No. 5,290,282 discloses a coagulating cannula which effectively operates in a localized area quite rapidly, without the need for removal of motorized shaving instruments, by the incorporation of a selective manually operative electrocautery positioned at a distal end of the shaft of the cannula. The cannula incorporates a nonconductive hub portion through which the motorized shaving instruments are inserted and removed. The electrocautery component enters the cannula at an electrical contact which protrudes from an outer surface of the hub portion and continuously runs within the hub and into a wall of the shaft terminating at the distal end of the shaft in a prominence at the tip of the shaft. The prominence is of a small surface area such that the prominence provides a small electrical contact area with a surrounding saline environment, thereby providing a high resistance arcing to the surrounding tissue that needs to be coagulated.

U.S. Patent No. 5,277,696 to Hagen discloses a radio frequency coagulation instrument which has two concentric tubular feedlines with coagulation electrodes at their ends. The tubular feedlines are simultaneously used to supply the radio frequency current to the coagulation electrode and for the supply and removal of a flushing liquid. Moreover, the passage formed within the tubular feedline which serves for the removal of flushing liquid, and which is expediently connected to a vacuum source, can be used independently of the supply of flushing liquid to suck away not only flushing liquid but also, or alternatively, blood, body fluids, secretions and pieces of body tissue.

U.S. Patent No. 5,236,414 to Takasu discloses a hand-supportable fat sucking instrument, in which an inner cannula slides within a stationary outer cannula, and ultrasonic energy is transmitted to the inner cannula tip to melt aspirated fat during aspiration operations.

U.S. Patent No. 5,186,714 to Boudreault et al. discloses a multifunctional surgical instrument for use in laparoscopic surgery, including a rigid hollow tube, or trocar, mounted on a pistol-grip shaped holder in which a cartridge may be removably mounted, incorporating valves and tubes for connection to a source of vacuum and a source of flushing liquid. The instrument is very simple yet efficient in structure, very handy and easy to use, and designed to allow fast and easy interchange of a tube by another tube incorporating or not electrodes or laser fibers. It can be used through a cannula, not only for irrigation or suction of physiological matter but also for suction of gas or vapors, electrocautery, laparoscopy or laser surgery.

U.S. Patent No. 5,112,302 to Cucin discloses a method and apparatus for mechanically-

assisted liposuction treatment. The apparatus includes a hand-holdable housing, a cannula, and a reciprocation mechanism. The hand-holdable housing has a cavity adaptable for receipt of a portion of the cannula. The cannula has a distal end and a proximal end and at least one suction aperture about the distal end. The cannula also has a base portion which is operably associated with the proximal end and insertable within the cavity so that the cannula is free to reciprocate relative to the housing. The reciprocation mechanism is disposed within the housing and is operably associated with the cannula so that the cannula can be selectively caused to reciprocate relative to the housing. The cannula is releasably detachable from the hand-holdable housing to facilitate cleaning and sterilization of the cannula and the housing.

U. S. Patent No. 5,106,364 to Hayafuji et al. discloses a surgical cutter comprising an inner tubular member with a cutting edge, reciprocating within an outer tubular member having an aperture. As the inner tubular member reciprocates, the cutting edge cuts fat which is aspirated through the aperture and the lumen of the inner tubular member.

U. S. Patent No. 5,024,652 to Dumenek et al. discloses an ophthalmological instrument comprising an inner tubular member with a cutting edge, reciprocating (small micro-movements) within an outer tubular member having an aperture. As the inner tubular member reciprocates, the cutting edge cuts fat which is aspirated through the aperture and the lumen of the inner tubular member.

U.S. Patent No. 4,940,468 to Petillo discloses a microsurgery instrument comprising an inner tubular member with a cutting edge, reciprocating within an outer tubular member having a small aperture. As the inner tubular member reciprocates, the cutting edge cuts fat which is aspirated through the small aperture and the lumen of the inner tubular member.

U.S. Patent No. 4,938,743 to Lee discloses a cannula with a guide bar, a rear end of which is formed with a mounting sleeve through which the cannula handle is clamped to the guide bar. The forward end of the guide bar carries a height adjustment bar having a pair of guide wheels rotatably mounted to a lower surface thereof between the guide bar and cannula tip. The height adjustment bar is provided with an elongated slot through which two screws pass for threaded connection to the forward end. Loosening of the screws permits the height adjustment bar to slide to vary the spacing between the guide wheels and cannula tip. The peripheral surface of each guide wheel is formed with an inner beveled edge that stretches the skin between the guide wheels during the suction lipectomy procedure enabling the cannula tip to travel at constant depth through the fatty tissue as the cannula is manually directed by the surgeon in reciprocating strokes.

U.S. Letters Patent No. 4,932,935 to Swartz discloses an improved lipectomy device, having inner and outer tubes. The outer tube has an elongated aspiration aperture, and the inner tube has a spiral slot. A mechanism inside the handle of the device causes the inner tube to rotate, creating a traveling hole effect along the aspiration aperture. Alternatively, the inner tube may oscillate rather than complete full rotations. This obviates the necessity of the surgeon repeatedly pushing the cannula in and out.

U.S. Patent No. 4,919,129 to Weber, Jr. et al. discloses an improved electrocautery method and instrument which is configured to accept attachable extension units for effectively extending the utility of the instrument into deep surgical sites. Interlock features enable the instrument to be

safely configured to any desired length for use as a vacuum probe and as a self-cleanable electro-cautery or electro-surgical instrument under convenient manual controls including a slide element and control buttons and interlock switch positioned on the instrument.

U.S. Patent No. 4,909,249 to Akkas, et al discloses a hand-held surgical instrument having an inner cannula whose top extends beyond a stationary outer cannula during tissue cutting and aspiration operations.

U.S. Patent No. 4,886,491 to Parisi, et al. discloses an ultrasonic aspirating probe for insertion into the body to remove fatty tissue.

U.S. Patent No. 4,850,354 to McGurk-Burleson, et al. discloses a surgical cutting instrument having an outer tube with an opening, and an inner cutter member which is rotatable within the outer tube.

U.S. Patent No. 4,815,462 to Clark discloses a lipectomy device having a hollow cannula with a suction aperture, and a rotatable shaft inside the hollow cannula. The rotatable shaft has a cutting blade which rotates within the hollow cannula about the suction aperture.

U.S. Letters Patent No. 4,792,327 to Swartz discloses an improved lipectomy device, having inner and outer tubes. The outer tube has an elongated aspiration aperture, and the inner tube has a spiral slot. A mechanism inside the handle of the device causes the inner tube to rotate, creating a traveling hole effect along the aspiration aperture. Alternatively, the inner tube may oscillate rather than complete full rotations. This obviates the necessity of the surgeon repeatedly pushing the cannula in and out. A valve system is also disclosed which allows the surgeon to maintain negative pressure in the vacuum line leading to the cannula while still allowing the cannula itself to be vented to ambient pressures.

U.S. Patent Nos. 4,775,365 to Swartz discloses a powered liposuction device having an inner tube rotatably disposed within an outer tube. The inner tube has a spiral slot at its distal end, whereas the outer tube has a longitudinal slot. When the inner tube is caused to rotate, a traveling hole appears in the longitudinal slot, through which aspiration of fat can occur.

U.S. Patent No. 4,735,605 to Swartz each disclose a powered liposuction device having an inner tube rotatably disposed within an outer tube. The inner tube has a spiral slot at its distal end, whereas the outer tube has a longitudinal slot. When the inner tube is caused to rotate, a traveling hole appears in the longitudinal slot.

U.S. Letters Patent No. 4,203,444 to Bonnell et al. discloses a surgical instrument useful in joint surgery. When in the form of a rotary vacuum shaver it comprises an external stationary tube having a side-facing, axially extending shaving port and an internal rotary blade capable of rotating at a slow speed, of the order of 200 rpm or below. Radial bearing portions at both proximal and distal ends radially support the blade in shearing relation to the external tube. A vacuum conduit draws fluid and articles to be shaved into the shaving port, and draws discrete shavings through the instrument, while the blade is driven at shearing speeds.

U.S. Patent No. 4,589,414 to Yoshida, et al. discloses a surgical cutting instrument having

an outer tube with an opening at its end, and an inner tube having a cutting opening with a cutting edge. As the inner tube is caused to reciprocate within the outer tube, the cutting opening of the inner tube extends beyond the end opening in the outer tube.

U.S. Patent No. 4,577,629 to Martinez discloses a surgical instrument for ophthalmic surgery, having a probe including an outer tube with an end port, and an inner tube with a cutaway distal end. As the inner tube reciprocates within the outer tube, the distal end of the inner tube provides shearing action as it moves across the end port in the outer tube.

U.S. Patent No. 4,536,180 to Johnson discloses a liposuction device having an outer tube with a suction aperture, and a stationary small-diameter tube within the outer tube, for allowing air to enter in the closed end portion of the outer tube to clear obstructions.

U.S. Patent No. 4,530,356 to Helfgott, et al. discloses an ophthalmic surgical instrument similar to U.S. Patent No. 4,536,180.

U.S. Patent No. 4,487,600 to Brownie, et al. discloses an adjustable suction device for medical use comprising an inner suction cannula that can be slidably adjusted within a rigid outer tube.

U.S. Patent No. 4,314,560 to Helfgott, et al. discloses an ophthalmic surgical instrument similar to U.S. Patent No. 4,536,180.

U.S. Patent No. 4,311,140 to Bridgman discloses a vacuum curet having a pair of spaced suction apertures.

U.S. Patent No. 4,203,444 to Bonnell, et al. discloses a surgical instrument including an elongated tube with an end aperture, and a rotatably disposed cutting shaft disposed within the tube.

U.S. Patent No. 4,167,944 to Banko discloses an ophthalmic surgical cutting instrument including an elongated tube with an aperture, and a rotatable cutting element disposed within the elongated tube.

U.S. Patent No. 3,994,297 to Kopf discloses an ophthalmic instrument having an inner tube disposed in an outer tube having a port. The inner tube has a hollow bore in communication with a vacuum source and a cutting edge at the end opening of the tube. As the inner tube is caused to reciprocate within the outer tube, vitreous to be excised enters the port, is sheared off by the cutting edge at the end opening of the inner tube, and is then removed by the vacuum source.

U.S. Patent No. 3,955,579 to Bridgman discloses a vacuum curet having a pair of spaced suction apertures.

U.S. Patent No. 3,945,375 to Banko discloses an instrument for removing tissue including a rotatable fluted cutter member housed in a probe adapted to be inserted into a portion of a body from which tissue is to be removed. The instrument can supply irrigation fluid through the probe to the area being operated upon and evacuate the material through the probe after being engaged

by the cutter.

U.S. Letters Patent No. 3,734,099 to Bender et al. discloses a powered surgical cutter with its own controlled vacuum system designed to clip tissue and remove each piece as it is clipped through a vacuum line. The apparatus has an elongated external fixed tubular cutter interiorly of which a similar cutter rotates. The inner cutter is driven by a motor by means of a hollow drive shaft, the interior of which shaft is in communication with the interior of the inner cutter. Vacuum is supplied through the interior of the drive shaft to the interior of the cutter. Control means are provided whereby tissue drawn into an opening in the tubular cutter by the vacuum is sheared off by the rotation of the inner cutter inside and against the bore of the external cutter.

U.S. Patent No. 3,732,858 to Banko discloses an ophthalmic surgical cutting instrument including an elongated tube with an aperture, and a rotatable cutting element disposed within the elongated tube.

U.S. Patent No. 3,082,805 to Royce discloses a tissue macerator including an outer tube and a rotatable cutting element disposed inside the outer tube.

French Patent No. 2 648 050 to Bouvier discloses equipment for drawing out and eliminating the surplus fat from the excess tissues of a sort which is made up of a cannula which can penetrate under the skin and is made up of openings for sucking fat. The central tube of the cannula connects this action with the flow of evacuation under reduced pressure and the disposition of this equipment is such that it moves back and forth linearly following the axis of the cannula, the parts being made of an exterior pump and an interior chamber with a piston which is solidly fixed to the base of the cannula.

European Patent No. 0 125 070 to Yoshida et al. discloses a surgical cutting instrument essentially comprising an outer sheath tube, an inner stationary tube which is disposed within said outer sheath tube such that the distal end of the inner tube projects from the distal end of outer sheath tube and is provided with a cutting opening for drawing cut tissue chips at the peripheral well of the distal end of the inner tube and a sliding member which is slidably disposed between said outer sheath tube and said inner tube so as to open and close said cutting opening and is provided with an outer cutting edge which engages an inner cutting edge of said cutting opening on the distal end edge of the sliding member, whereby a body tissue is cut be axially and slidingly reciprocating said sliding member to open and close said cutting opening and cut tissue pieces are withdrawn from the body by suction through a suction channel of the inner tube.

The Scientific Article from Clinic in Plastic Surgery (Vol. 11, No. 3, July 1984) entitled "Body Contouring with Suction Lipectomy" by Kesselring, discloses a method of removing an entire layer of regular, deep fat by aspiration through a cannula, leaving a smooth, deep surface of the residual panniculus. The space thus created is then compressed, optimally followed by skin retraction.

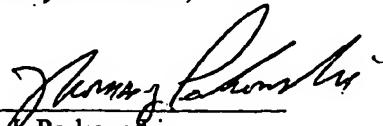
The Scientific Article from Clinic in Plastic Surgery (Vol. 11, No. 3, July 1984) entitled "Illouz's Technique of Body Contouring by Lipolysis" by Illouz discloses a method of making regular tunnels at a depth of at least one centimeter under the skin. According to this method, one or two insertions are made, with radial excursions of the cannula into the fatty tissue of the patient.

The result is a multitude of concomitant sinuses formed below the subcutaneous fatty tissue, leaving intact as far as possible the connections between the skin and underlying tissue, thereby retaining the blood vessels, the lymphatics and the nerve endings.

A separate listing of the above references on PTO Form 1449 and a copy of these references are enclosed herewith for the convenience of the Examiner.

Respectfully submitted,

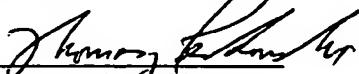
Dated: February 5, 2004

  
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Thomas J. Perkowski, Esq.  
Dated: February 5, 2004

Substitute for form 1449A/PTO

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INFORMATION  
DISCLOSURE STATEMENT  
BY APPLICANT

Sheet

1

of

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FEB 09 2004

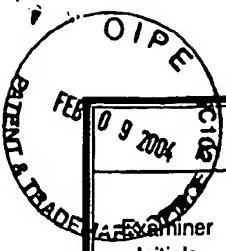
TRADEMADE

Complete If Known

|                        |                 |
|------------------------|-----------------|
| Application Number     | 10/712,215      |
| Filing Date            | November 4,2003 |
| First Name Inventor    | Robert L. Cucin |
| Group Art Unit         | N/a             |
| Examiner Name          | N/a             |
| Attorney Docket Number | 113-003USANB0   |

U.S. PATENT DOCUMENTS

| Examiner Initials | Cite No. | U.S. Patent Documents |                      | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Int'l Class / Sub Class |
|-------------------|----------|-----------------------|----------------------|---|--|-------------------------|
|                   |          | Number                | Kind Code (if known) |   |  |                         |
|                   |          | 6,102,885             |                      | Bass  | 08/15/2000                                       | A61B 17/20              |
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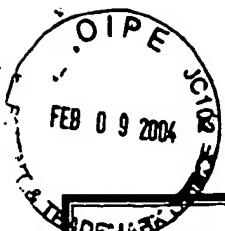
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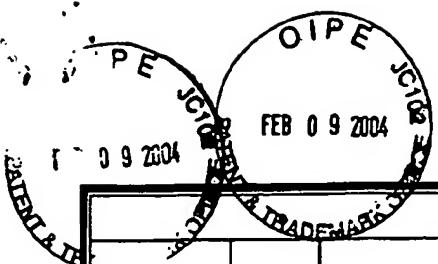
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